

# 3914

Diag. Cht. No. 8201-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. \_\_\_\_\_ Office No. H-3914

### LOCALITY

State ALASKA

General locality SOUTHEAST ALASKA

Locality NORTHERN END OF BLAKE CHANNEL &

THE NARROWS BETWEEN BLAKE CHANNEL & EAST-  
ERN PASSAGE

1916

### CHIEF OF PARTY

L. O. Colbert

### LIBRARY & ARCHIVES

DATE JANUARY 24, 1917.

B-1870-1 (1)

# 3914

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 3914

State S.E. Alaska

General locality The Narrows between Eastern Passage and Blake Channel

Locality Western end Narrows to point 3/4 mile south of Neptune Island in Blake Channel

Chief of party L.O. Gilbert

Surveyed by L.O. Gilbert

Date of survey Sept 21 to Oct 10, 1916

Scale 1/10000

Soundings in Fath

Plane of reference Mean Low & low water

Protracted by N.P.W. . . . Soundings in pencil by N.P.W. . .

Inked by N.P.W. . . . Verified by . . . . .

Records accompanying sheet (check those forwarded):

/ Des. report, \_\_\_\_\_ Tide books, \_\_\_\_\_ Marigrams, / Boat sheets,

/ Sounding books, / Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet . . . . .

Remarks:

DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

E. Lester Jones  
Superintendent.

DESCRIPTIVE REPORT

to accompany  
WIRE DRAG SHEET No. 3944

NORTHERN END of BLAKE CHANNEL, SOUTHEAST ALASKA,  
and  
THE NARROWS, between BLAKE CHANNEL and EASTERN PASSAGE.

by

WIRE DRAG PARTY NO. 4.

L.O. Colbert, Chief of Party

1916

Scale 1 - 10,000.

DESCRIPTIVE REPORT OF  
of  
WIRE DRAG SHEET No. \_\_\_\_\_ (8)

Page 1.  
L.O.C. 1916

Northern end of Blake Channel, Southeast Alaska, and  
The Narrows, between Blake Channel and the Eastern Passage.

Limits of the Sheet:

This sheet covers an area beginning one-fourth of a mile west of the entrance to the Narrows, making a complete sweep of the area in the Narrows and extending through the Northern end of Blake Channel to a line running east and west across the Channel three - fourths of a mile south of Neptune Island.

The drag was also run up toward Oerns Creek to a "ground" in shoal water. A Hydrographic survey was run extended toward the head of the the bay to obtain the limits of the flats.

In Berg Cove a Hydrographic survey was run, as this Cove affords the best anchorage in this vicinity and appears to have been unsurveyed.

Depth Dragged:

The effective depth dragged on this survey varied greatly, owing to the manner in which the area was broken up by shoals. However, in the usual track of steamers an effective depth of 32 feet or more was dragged.

Distance off Shore:

On the Wrangell side the drag was kept from 50 to 150 meters off shore, except at  $\Delta$  Leo, where owing to the shoal a wider berth was necessary.

On the mainland side over most of the area, the drag was kept 200 to 250 meters off shore. This stretch of shoreline is bordered by reefs and shoals, also it is broken up by small bays and off lying groups of Islands.

Currents and their effect on the drag:

The tidal current over all this area was too strong to take the drag against the set. There was no current station at any point on this sheet, though at on one occasion it was observed that the tide ebbed in both directions from  $\Delta$  Phoebe. See the current record for observations at a station one mile west of the western entrance to the Narrows for the time of slack water.

Shoals:

(1) In the western entrance to the Narrows, between Eastern Passage and Blake Channel, a rocky reef was found to extend 75 meters off the mainland shore. It projects off the second point from the entrance at the narrowest part of the channel in a south southwesterly (true) direction. These latter rocks are awash at mean lower low water as charted. Steamers using the Passage favor the north side. On account of the above reef they should give this point a berth of at least 100 meters. There was no kelp on the reef. The Channel at this point is 500 meters wide. The passage is used by such steamers as the Jefferson, City of Seattle and Spokane, and as it has been found to be comparatively free from sunken rocks, and is sometimes used to abq avoid the rough water in Clarence Strait, it is recommended that the attention of the Light-house Service be called to the narrowness of the Channel at this point, and that they establish a buoy at the northern limit of the shoal shown on chart 8200. A larger scale chart of this section would be advisable. A dept of <sup>about</sup> 40 ft at mean lower low water must exist at end launch position 11A, since "F" buoy went aground here, however, no sounding was taken. This is at the north edge of shoal at Δ Leo.

(2) In the eastern part of the Narrows, and about one mile from the Island (called Neptune Island by this party) at the head of Blake Channel, a rocky shoal 250 meters in diameter was located by means of the drag. The least depth found was 9 feet on the following bearings:

Tangent to small cove called Berg Cove, bears

111° (true)  $E \frac{1}{2} N$  (magnetic). Southeast point of small

island <sup>1/2 miles</sup> west of Berg Cove bears 312° (true) WxN (mag.) distant 470 mts.

From the shoal the nearest distance to the mainland is 410 meters, and to Wrangell Island shore 600 meters.

Steamers can easily avoid this rock by holding the Wrangell Island shore close aboard, as this shore is bold.

There was no sign of kelp on the shoal. A depth of 5 feet was dragged over this shoal.

(3) The Cove, mentioned <sup>above</sup> as Berg Cove, is an indentation on the mainland side, and <sup>is</sup> separated from the head of Blake Channel by a small peninsular about one-fourth of a mile across. It was used as an anchorage by the power schooner King and Winge, and was found to be well sheltered. The name of Berg Cove was given by this party, as a family of that name have located a mine in that vicinity, and built their house on the shore of the Cove.

Shoals Continued:

(3) continued:-

In the Cove were found two dangerous rocks. The first has but one foot of water over it at mean lower low water.

\*note.... It is located 90 meters off the north end of a small island at the entrance. This end of the island bears 180 (true). \* note that this island is not shown on chart 8200. The western side of the Cove is 160 meters distant, and the eastern side 250 meters. The rock had a flat top about ten feet in diameter. There was no kelp growing on this rock.

The second rock has five feet over it at mean lower low water. It is also off the north end of the island and further into the Cove toward the center. It lies 180 meters distant from both sides of the Cove. The north end of the island at the entrance bears 185°(true) distant 140 meters.

(4) A rocky ledge, extending off the northern end of Neptune Island, was located. A least depth of 13 feet at mean lower low water was found on the outer limits of this ledge. The following bearings and distances will determine the position of this sounding.

(1) Northern end of Neptune Island bears 163°(true), distant 85 meters.

(2) Southern end of Island at entrance to Berg Cove bears 319° (true), distant 350 meters.

This sounding is near the extreme end of the ledge.

Adjoining Sheets Connecting with this Survey:

The western end of this sheet is overlapped by the southern limits of the sheet of Eastern Passage 1916, while the eastern end is overlapped by the sheet of Blake Channel also done in 1916.

Control of the Survey:

The signals used in making this survey were located either by triangulation or plane table by Wire Drag Party No.4, a few days previous to the drag work.

Tide Reducers:

The tide reducers were taken from the marigram of the tide gauge at Wrangell, but corrected to agree with the tides at Ham Island. The Ham Island low waters were found to be the same as at Wrangell in length height and time. The Ham Island high waters were the same in height and 20 minutes later than at Wrangell.

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Coast Pilot Notes:

This sheet embraces the most important area of Eastern Passage and Blake Channel since it includes the Narrows. It also has two bays; Berg Cove and the bay into which Oern Creek empties. The latter is of little importance, though it may be worth mentioning that shortly after entering the Bay the water suddenly shoals from 15 to 4 fathoms, and the bay affords no anchorage except for small launches which go above the small island on the west side at high water and lay in the mud as the tide recedes.

Berg Cove on the other hand is a good anchorage at fifteen fathoms and soft bottom. The bay can be entered on either side of the island at its entrance, provided care is exercised to avoid the rocks mentioned off the north end of this island, and the rocky ledge off the north end of Neptune Island.

Conclusion:

The area of this sheet is very small compared with the amount of work that actually accomplished. The narrowness of the channel, and the way that parts of the Channel were broken up by shoals and groups of islands, made it necessary to do the work with a number of short drags. The work as accomplished, is a clean sweep of the area from the western entrance of the Narrows to three-quarters of a mile south of Neptune Island in Blake Channel.

STATISTICS OF SHEET NO. (8)

<u>Day</u>	<u>No. angles</u>	<u>no. miles</u>	<u>No. retained Soundings</u>
A	322	5.3	251
B	426	8.5	
C	<u>114</u>	<u>2.2</u>	
	862	16.0	<u>251</u>

Total Area 3.2 Square Statute Miles.

Approved

*L. O. Robert*

Assistant, C. & G. Survey  
Chief of Party.

*J. J. Thomas*

Assistant, C. & G. Survey  
Compiler

ADDRESS  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON, D. C.

REFER TO NO. 5-VEC

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

FIELD RECORDS (H)

September 28, 1917.

Chief, Division of Hydrography and Topography:

Chief, Division of Charts:

Tidal reductions are revised in  
2 volumes of Sounding records for

HYDROGRAPHIC SHEET 3914

Blake Channel, S.E. Alaska  
L.O.Colbert in 1916

Plane of reference is  
Mean lower low water reading  
Ft.  
4.6 on tide staff at Wrangell\*

\*Allowance made for difference  
in tide at place of sounding.

*L. P. Shady*

Acting Chief, Section of  
Tides and Currents.



April 7, 1921.

To: The Chief of the Section of Field Records.

From: A. L. Sklarwitz

Subject: Verification of Hydrographic Sheet 3914.

The records for this sheet were not too well kept. There was no attempt at rectifiers particularly the sounding records. The names of the objects were invariably written in the column marked "boats head by compass" instead of in the column "angles and ranges". The boats head or course were never given. There should have been more explanatory notes given in the record, for instance as giving the reason for only dragging over an 8 ft. shoal with a 4 ft. drag, as was done on 1B to 5B. Between 40B and 41B a 40 ft. drag passed close to a 22 ft. ~~shp.~~ spot. It seems hardly likely that the H buoy would have passed so close without bumping and yet no mention was made in the record. Again at 64-B the drag evidently grounded. A note is made in the record to the effect that the drag was cleared and the line continued, yet no mention was made about the drag being aground.

The smooth sheet plotting was generally good. The strip from ~~51~~ 46B to 51B was badly plotted as well as the strip from 44-A to 46-A. If the plotter had any reasons for plotting them as he did then he should have made an appropriate note in the record. But in the absence of such note there was nothing to do but to change it, particularly since the smooth sheet differed from the boat sheet. Many changes had to be made on account of the changes in tide made

in the office.

The detached soundings were very carefully plotted but the spacing of the soundings on the lines in Beng Cove ~~was~~ ~~poorly~~ was very poor.

The sheet was well kept and was unusually clean.

The verification disclosed no splits.

A. I. Shalavitz  
H. & J. Shafterman.

E.P.C.

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 9-MEM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

SECTION OF FIELD RECORDS.

REPORT ON WIRE DRAG SHEET No. 3914.

Surveyed in 1916.

Chief of Party: L. O. Colbert.

Surveyed by L. O. Colbert. Instructions dated Feb. 26, 1916.

Protracted and inked by N. P. White.

Verified and Area and Depth Sheet by A. L. Shalowitz.

1. The extent of dragging satisfies the specific instructions, although from a physical inspection of the sheet it would seem that just west of the Narrows the drag could have been run a little closer to the shoal.
2. The least water was found on all shoals discovered. The 8' shoal west of Berg Cove is included since a 4' drag cleared this shoal.
3. The supplemental hydrography is suitable for correcting the charts.
4. The overlaps are ample.
5. No further dragging will be required in this area.
6. Descriptive report contains good information as to anchorages in this vicinity.
7. Reviewed by A. L. Shalowitz, June, 1922.